

DAQ Status

- Old problems are still with us
 - run control out-of-memory errors
 - * Introduced early warning mechanism last week → greatly reduced number of crashes, but restart of run control necessary about once/2h
 - * now have increased memory limit and added additional garbage collection
 - * this will buy some extra time between restarts
 - "creeping deadtime": long tails in readout time developing over several days
 - * rebooting creates between stores
 - suspended ATM driver tasks in event builder CPUs: have to "clean up event builder" once/day or more
- Other minor complications that cause data loss
 - noise in muon systems / TDCs that comes and goes ... need to improve tools on shift to quickly identify the cause of deadtime
 - jumps in deadtime due to Level 2 (diagnostic output)
 - "unidentified" Level 2 decision crate failures: on several occasions, L2 decision crate would give errors that cause data taking to stop, shift crew had no choice but to drop L2 from the run
 - "bad data" from Silicon: rejected events (sometimes 100%), bus errors, BUSY timeouts
 - initialization failures (Silicon, SVT, L2, ...)
- New version of software event builder (some bug fixes and upgrades)
- New version of run control error handler, more advice for shift crews

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- **Improvements to Level 3 monitoring**
 - convenient place to identify rejection due to
 - * corrupt data ("reformatter errors")
 - * filters
- **Bug fixes in calorimeter calibrations**
 - LER values were not downloaded correctly, swapped between Admems
 - New version of QIEPED consumer that fixes Plug channel mapping. Vectorization not yet enabled
 - Also changes to allow QIE calibrations of TOF and Laser Admems
- **Consumer Server/Logger: look area will from now on be handled by CSL**
 - Shift crew will have 3 options in the beginning:
 - * no files to the look area
 - * all files are written to the look area
 - * default number of files goes to the look area ($A=all$, $B=1$, $G=1$, $I=2$, $J=1$)
 - A script will copy files to fdfsgi2, deleting oldest files if necessary. Might delay/skip copying if load on CSL is too large (under study)
 - Additional monitoring will give shift crew information on what is going to the look area
 - Can also add warnings, e.g. "X % of look area has been overwritten in last N hours"
 - In general, more flexibility for the shift crew